

L Number	Hits	Search Text	DB	Time stamp
1	3	("5510508").PN.	USPAT; EPO; JPO; DERWENT	2001/12/20 07:33
2	627	("560/41").CCLS.	USPAT; EPO; JPO; DERWENT	2001/12/20 07:41
3	3	("5773640").PN.	USPAT; EPO; JPO; DERWENT	2001/12/20 07:34
5	145376	crystalliz\$	USPAT; EPO; JPO; DERWENT	2001/12/20 07:42
6	253	((("560/41").CCLS.) and crystalliz\$	USPAT; EPO; JPO; DERWENT	2001/12/20 07:42
7	12490	dimethylbut\$	USPAT; EPO; JPO; DERWENT	2001/12/20 07:43
8	15	((("560/41").CCLS.) and crystalliz\$) and dimethylbut\$	USPAT; EPO; JPO; DERWENT	2001/12/20 08:03
9	153364	X-ray	USPAT; EPO; JPO; DERWENT	2001/12/20 11:47
10	225	neohexyl\$	USPAT; EPO; JPO; DERWENT	2001/12/20 08:04
11	5	neohexyl\$ and (("560/41").CCLS.)	USPAT; EPO; JPO; DERWENT	2001/12/20 08:36
12	12645	neohexyl\$ or dimethylbut\$	USPAT; EPO; JPO; DERWENT	2001/12/20 08:36
13	30	(neohexyl\$ or dimethylbut\$) and (("560/41").CCLS.)	USPAT; EPO; JPO; DERWENT	2001/12/20 08:36
14	116254	seed	USPAT; EPO; JPO; DERWENT	2001/12/20 08:48
15	5	((neohexyl\$ or dimethylbut\$) and (("560/41").CCLS.)) and seed	USPAT; EPO; JPO; DERWENT	2001/12/20 08:37
16	177349	seed\$	USPAT; EPO; JPO; DERWENT	2001/12/20 13:38
17	4462	aspartame	USPAT; EPO; JPO; DERWENT	2001/12/20 08:54
18	88	(neohexyl\$ or dimethylbut\$) and aspartame	USPAT; EPO; JPO; DERWENT	2001/12/20 08:54
19	5	seed\$ and ((neohexyl\$ or dimethylbut\$) and aspartame)	USPAT; EPO; JPO; DERWENT	2001/12/20 11:47
20	3	("5480668").PN.	USPAT; EPO; JPO; DERWENT	2001/12/20 11:46
22	7924	seed\$ and X-ray	USPAT; EPO; JPO; DERWENT	2001/12/20 11:49
23	0		USPAT; EPO; JPO; DERWENT	2001/12/20 11:49
24	0		USPAT; EPO; JPO; DERWENT	2001/12/20 11:49
25	687	seed\$ and aspartame	USPAT; EPO; JPO; DERWENT	2001/12/20 11:50

26	10	((("560/41").CCLS.) and (seed\$ and aspartame)	USPAT; EPO; JPO; DERWENT	2001/12/20 11:50
27	1		USPAT	2001/12/20 11:51
28	1		USPAT	2001/12/20 11:52
29	2	5502238.URPN.	USPAT; EPO; JPO; DERWENT	2001/12/20 11:52
30	10511	seed adj crystal	USPAT; EPO; JPO; DERWENT	2001/12/20 13:33
31	18971	polymorph\$	USPAT; EPO; JPO; DERWENT	2001/12/20 13:33
32	69	(seed adj crystal) and polymorph\$	USPAT; EPO; JPO; DERWENT	2001/12/20 13:33
33	44	neotame	USPAT; EPO; JPO; DERWENT	2001/12/20 13:38
34	3	seed\$ and neotame	USPAT; EPO; JPO; DERWENT	2001/12/20 15:00
35	3	5728862.pn.	USPAT; EPO; JPO; DERWENT	2001/12/20 15:01

	Type	L #	Hits	Search Text	DBs	Time Stamp	Comments	Error Definition
1	IS&R	L1	3	("5510508").PN.	USPAT; EPO; JPO; DERWE NT	2001/12/20 07:33		
2	IS&R	L2	627	("560/41").CCLS.	USPAT; EPO; JPO; DERWE NT	2001/12/20 07:41		
3	IS&R	L3	3	("5773640").PN.	USPAT; EPO; JPO; DERWE NT	2001/12/20 07:34		
4	BRS	L5	14537 6	crystalliz\$	USPAT; EPO; JPO; DERWE NT	2001/12/20 07:42		
5	BRS	L6	253	12 and 15	USPAT; EPO; JPO; DERWE NT	2001/12/20 07:42		
6	BRS	L7	12490	dimethylbut\$	USPAT; EPO; JPO; DERWE NT	2001/12/20 07:43		
7	BRS	L8	15	16 and 17	USPAT; EPO; JPO; DERWE NT	2001/12/20 08:03		
8	BRS	L9	15336 4	X-ray	USPAT; EPO; JPO; DERWE NT	2001/12/20 11:47		
9	BRS	L10	225	neohexyl\$	USPAT; EPO; JPO; DERWE NT	2001/12/20 08:04		
10	BRS	L11	5	110 and 12	USPAT; EPO; JPO; DERWE NT	2001/12/20 08:36		

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1	0
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3	0
4	0
5	0
6	0
7	0
8	0
9	0
10	0

	Type	L #	Hits	Search Text	DBs	Time Stamp	Comments	Error Definition
11	BRS	L12	12645	110 or 17	USPAT; EPO; JPO; DERWE NT	2001/12/20 08:36		
12	BRS	L13	30	112 and 12	USPAT; EPO; JPO; DERWE NT	2001/12/20 08:36		
13	BRS	L14	11625 4	seed	USPAT; EPO; JPO; DERWE NT	2001/12/20 08:48		
14	BRS	L15	5	113 and 114	USPAT; EPO; JPO; DERWE NT	2001/12/20 08:37		
15	BRS	L16	17734 9	seed\$	USPAT; EPO; JPO; DERWE NT	2001/12/20 13:38		Truncation Overflow. Return string from Server is: 5`0`0`SEE
16	BRS	L17	4462	aspartame	USPAT; EPO; JPO; DERWE NT	2001/12/20 08:54		
17	BRS	L18	88	112 and 117	USPAT; EPO; JPO; DERWE NT	2001/12/20 08:54		
18	BRS	L19	5	116 and 118	USPAT; EPO; JPO; DERWE NT	2001/12/20 11:47		
19	IS&R	L20	3	("5480668").PN.	USPAT; EPO; JPO; DERWE NT	2001/12/20 11:46		
20	BRS	L22	7924	116 and 19	USPAT; EPO; JPO; DERWE NT	2001/12/20 11:49		

	Err ors
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12	0
13	0
14	0
15	1
16	0
17	0
18	0
19	0
20	0

	Type	L #	Hits	Search Text	DBs	Time Stamp	Comments	Error Definition
21	BRS	L23	0	116 and 14	USPAT; EPO; JPO; DERWE NT	2001/12/20 11:49		
22	BRS	L24	0	19 and 14	USPAT; EPO; JPO; DERWE NT	2001/12/20 11:49		
23	BRS	L25	687	116 and 117	USPAT; EPO; JPO; DERWE NT	2001/12/20 11:50		
24	BRS	L26	10	12 and 125	USPAT; EPO; JPO; DERWE NT	2001/12/20 11:50		
25	BRS	L27	1	"5502238".PN.	USPAT	2001/12/20 11:51		
26	BRS	L28	1	"5502238".PN.	USPAT	2001/12/20 11:52		
27	BRS	L29	2	5502238.URPN.	USPAT; EPO; JPO; DERWE NT	2001/12/20 11:52		
28	BRS	L30	10511	seed adj crystal	USPAT; EPO; JPO; DERWE NT	2001/12/20 13:33		
29	BRS	L31	18971	polymorph\$	USPAT; EPO; JPO; DERWE NT	2001/12/20 13:33		
30	BRS	L32	69	130 and 131	USPAT; EPO; JPO; DERWE NT	2001/12/20 13:33		
31	BRS	L33	44	neotame	USPAT; EPO; JPO; DERWE NT	2001/12/20 13:38		

	Err ors
21	0
22	0
23	0
24	0
25	0
26	0
27	0
28	0
29	0
30	0
31	0



	Type	L #	Hits	Search Text	DBs	Time Stamp	Comments	Error Definition
32	BRS	L34	3	116 and 133	USPAT ; EPO; JPO; DERWE NT	2001/12/20 15:00		
33	BRS	L35	3	5728862.pn.	USPAT ; EPO; JPO; DERWE NT	2001/12/20 15:01		

	Err ors
32	0
33	0

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NEWS	3	Feb 06	Engineering Information Encompass files have new names
NEWS	4	Feb 16	TOXLINE no longer being updated
NEWS	5	Apr 23	Search Derwent WPINDEX by chemical structure
NEWS	6	Apr 23	PRE-1967 REFERENCES NOW SEARCHABLE IN CAPLUS AND CA
NEWS	7	May 07	DGENE Reload
NEWS	8	Jun 20	Published patent applications (A1) are now in USPATFULL
NEWS	9	JUL 13	New SDI alert frequency now available in Derwent's DWPI and DPCI
NEWS	10	Aug 23	In-process records and more frequent updates now in MEDLINE
NEWS	11	Aug 23	PAGE IMAGES FOR 1947-1966 RECORDS IN CAPLUS AND CA
NEWS	12	Aug 23	Adis Newsletters (ADISNEWS) now available on STN
NEWS	13	Sep 17	IMSworld Pharmaceutical Company Directory name change to PHARMASEARCH
NEWS	14	Oct 09	Korean abstracts now included in Derwent World Patents Index
NEWS	15	Oct 09	Number of Derwent World Patents Index updates increased
NEWS	16	Oct 15	Calculated properties now in the REGISTRY/ZREGISTRY File
NEWS	17	Oct 22	Over 1 million reactions added to CASREACT
NEWS	18	Oct 22	DGENE GETSIM has been improved
NEWS	19	Oct 29	AAASD no longer available
NEWS	20	Nov 19	New Search Capabilities USPATFULL and USPAT2
NEWS	21	Nov 19	TOXCENTER(SM) - new toxicology file now available on STN
NEWS	22	Nov 29	COPPERLIT now available on STN
NEWS	23	Nov 29	DWPI revisions to NTIS and US Provisional Numbers
NEWS	24	Nov 30	Files VETU and VETB to have open access
NEWS	25	Dec 10	WPINDEX/WPIDS/WPIX New and Revised Manual Codes for 2002
NEWS	26	Dec 10	DGENE BLAST Homology Search
NEWS	27	Dec 17	WELDASEARCH now available on STN
NEWS	28	Dec 17	STANDARDS now available on STN
NEWS	29	Dec 17	New fields for DPCI
NEWS	30	Dec 19	CAS Roles modified
NEWS	31	Dec 19	1907-1946 data and page images added to CA and Caplus
NEWS EXPRESS		August 15	CURRENT WINDOWS VERSION IS V6.0c, CURRENT MACINTOSH VERSION IS V6.0 (ENG) AND V6.0J (JP), AND CURRENT DISCOVER FILE IS DATED 07 AUGUST 2001
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NEWS INTER			General Internet Information
NEWS LOGIN			Welcome Banner and News Items
NEWS PHONE			Direct Dial and Telecommunication Network Access to STN
NEWS WWW			CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that specific topic.

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\* \* \* \* \* STN Columbus \* \* \* \* \*

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=> file caplus		
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	ENTRY	SESSION
FULL ESTIMATED COST	0.15	0.15

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FILE COVERS 1907 - 20 Dec 2001 VOL 135 ISS 26  
FILE LAST UPDATED: 19 Dec 2001 (20011219/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

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=> aspartame  
2544 ASPARTAME  
6 ASPARTAMES

L1            2544 ASPARTAME  
                  (ASPARTAME OR ASPARTAMES)

=> dimethylbutyl  
 L2            1168 DIMETHYLBUTYL

=> l1 and l2  
 L3            40 L1 AND L2

=> seed?  
 L4            202700 SEED?

=> l3 and l4  
 L5            5 L3 AND L4

=> d l5 1-5 ti

L5    ANSWER 1 OF 5    CAPLUS    COPYRIGHT 2001 ACS  
 TI    Pharmaceutical compositions containing neotame

L5    ANSWER 2 OF 5    CAPLUS    COPYRIGHT 2001 ACS  
 TI    Nutraceuticals having N-[N-(3,3-dimethylbutyl  
       )-L-.alpha.-aspartyl]-L-phenylalanine 1-methyl ester

L5    ANSWER 3 OF 5    CAPLUS    COPYRIGHT 2001 ACS  
 TI    Cereals and cereal-based food sweetened with neotame

L5    ANSWER 4 OF 5    CAPLUS    COPYRIGHT 2001 ACS  
 TI    Crystallization processes of stable crystals of **aspartame**  
       derivatives

L5    ANSWER 5 OF 5    CAPLUS    COPYRIGHT 2001 ACS  
 TI    Cocrystallization of sugar and n-[n-(3,3-dimethylbutyl  
       )-1-.alpha.-aspartyl]-l-phenylalanine 1-methyl ester

=> d l5 4-5 ti

L5    ANSWER 4 OF 5    CAPLUS    COPYRIGHT 2001 ACS  
 TI    Crystallization processes of stable crystals of **aspartame**  
       derivatives

L5    ANSWER 5 OF 5    CAPLUS    COPYRIGHT 2001 ACS  
 TI    Cocrystallization of sugar and n-[n-(3,3-dimethylbutyl  
       )-1-.alpha.-aspartyl]-l-phenylalanine 1-methyl ester

=> d l5 4-5 ti fbib abs

L5    ANSWER 4 OF 5    CAPLUS    COPYRIGHT 2001 ACS  
 TI    Crystallization processes of stable crystals of **aspartame**  
       derivatives  
 AN    2000:314715    CAPLUS  
 DN    132:321237  
 TI    Crystallization processes of stable crystals of **aspartame**  
       derivatives  
 IN    Kawahara, Shigeru; Kishishita, Akihiro; Nagashima, Kazutaka; Takemoto,  
       Tadashi  
 PA    Ajinomoto Co., Inc., Japan  
 SO    PCT Int. Appl., 24 pp.  
       CODEN: PIXXD2

DT Patent  
LA Japanese  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000026234	A1	20000511	WO 1999-JP6082	19991101
	W: BR, CA, CN, HU, KR, MX, RU, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
				JP 1998-310225 A	19981030
				JP 1998-310226 A	19981030
	JP 2000136196	A2	20000516	JP 1998-310225	19981030
	JP 2000136197	A2	20000516	JP 1998-310226	19981030
	BR 9914826	A	20011106	BR 1999-14826	19991101
				JP 1998-310225 A	19981030
				JP 1998-310226 A	19981030
				WO 1999-JP6082 W	19991101

AB A crystn. process for forming a stable crystal of N-(3,3-**dimethylbutyl**)-L-.alpha.-aspartyl-L-phenylalanine Me ester, comprises using either water or a mixt. of water with a lower alc. as the crystg. solvent and controlling the crystn. point to .gtoreq. 30.degree.; and another crystn. process comprises using either water or a mixt. of water with a lower alc. as the crystg. solvent and using as the **seed** crystal, a crystal of N-(3,3-**dimethylbutyl**)-APM exhibiting peculiar peaks of diffracted x-ray at least at diffraction angles (2 .theta., CuK.alpha. ray) of 6.0.degree., 24.8.degree., 8.2.degree. and 16.5.degree. to thereby crystallize the above objective crystal preferentially. These crystn. processes enable the const. formation of stable crystals of N-(3,3-**dimethylbutyl**)-APM at a low cost.

RE.CNT 18

RE  
(1) Ajinomoto Co Inc; JP 04346997 A CAPLUS  
(2) Ajinomoto Co Inc; EP 514939 A1 1992 CAPLUS  
(3) Anon; US 5248806 A CAPLUS  
(7) Nofre Claude; FR 2719590 A CAPLUS  
(8) Nofre Claude; FR 2719591 A CAPLUS  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2001 ACS  
TI Cocrystallization of sugar and n-[n-(3,3-**dimethylbutyl**)-1-.alpha.-aspartyl]-l-phenylalanine 1-methyl ester  
AN 2000:190873 CAPLUS  
DN 132:221732  
TI Cocrystallization of sugar and n-[n-(3,3-**dimethylbutyl**)-1-.alpha.-aspartyl]-l-phenylalanine 1-methyl ester  
IN Fotos, Jim; Bishay, Ihab E.; Prakash, Indra; Wachholder, Kurt; Desai, Nitin  
PA Nutrasweet Co., USA  
SO PCT Int. Appl., 29 pp.  
CODEN: PIXXD2  
DT Patent  
LA English  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000015050	A1	20000323	WO 1999-US21476	19990916
	W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK,				

SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY,  
KG, KZ, MD, RU, TJ, TM  
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,  
DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,  
CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

US 6214402 B1 20010410 US 1998-154568 A 19980917  
AU 9961505 A1 20000403 US 1998-154568 19980917  
AU 1999-61505 19990916  
US 1998-154568 A 19980917  
WO 1999-US21476W 19990916  
EP 1139794 A1 20011010 EP 1999-948295 19990916  
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
IE, FI

US 1998-154568 A 19980917  
WO 1999-US21476W 19990916

AB Cocrystrn. of N-[N-(3,3-dimethylbutyl)-1-.alpha.-aspartyl]-L-phenylalanine 1-Me ester (neotame) with sugar (sucrose) in various ratios is achieved. Thus, a sucrose soln. (195 g/100 mL) is heated and seeded with 0.225 g neotame and 5 g sucrose to afford a product that was sugar cocrystd. with neotame. The sugar cocrystd. sweetener is very sol. in water and has no dusting problems.

RE.CNT 4

RE

- (1) Ajinomoto KK; JP 59063158 A 1984 CAPLUS
- (2) Nofre, C; US 5480668 A 1996 CAPLUS
- (3) Shiyouwa Sangyo KK; JP 60114169 A 1985 CAPLUS
- (4) The Nutrasweet Company; WO 9930576 A 1999 CAPLUS

=> d his

(FILE 'HOME' ENTERED AT 11:35:04 ON 20 DEC 2001)

FILE 'CAPLUS' ENTERED AT 11:35:12 ON 20 DEC 2001

L1 2544 ASPARTAME  
L2 1168 DIMETHYLBUTYL  
L3 40 L1 AND L2  
L4 202700 SEED?  
L5 5 L3 AND L4

=> neohehyl

L6 60 NEOHEXYL

=> neohehyl?

L7 73 NEOHEXYL?

=> l7 and l1

L8 3 L7 AND L1

=> l8 not l5

L9 3 L8 NOT L5

=> d l9 1-3 ti

L9 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2001 ACS

TI Use of additives to modify the taste characteristics of N-neohehyl-.alpha.-aspartyl-L-phenylalanine methyl ester

L9 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2001 ACS

TI Use of N-neohehyl-.alpha.-aspartyl-L-phenylalanine methyl ester as a flavor modifier

L9 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2001 ACS  
TI A method for the preparation of N-**neohexyl**-.alpha.-aspartyl-L-phenylalanine methyl ester from imidazolidin-4-one intermediates

=> x-ray  
1213031 X  
781394 RAY  
156593 RAYS  
843513 RAY  
(RAY OR RAYS)  
L10 630673 X-RAY  
(X(W)RAY)

=> l10 and l3  
L11 4 L10 AND L3

=> d l11 1-4 ti

L11 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2001 ACS  
TI Investigation of Polymorphism in **Aspartame** and Neotame Using Solid-State NMR Spectroscopy

L11 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2001 ACS  
TI Crystallization processes of stable crystals of **aspartame** derivatives

L11 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2001 ACS  
TI Novel **aspartame** derivative crystal and process for producing the same

L11 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2001 ACS  
TI Novel **aspartame** derivative crystal and process for producing the same

=> d l11 1,3,4 ti fbib abs

L11 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2001 ACS  
TI Investigation of Polymorphism in **Aspartame** and Neotame Using Solid-State NMR Spectroscopy  
AN 2000:620337 CAPLUS  
DN 133:349355  
TI Investigation of Polymorphism in **Aspartame** and Neotame Using Solid-State NMR Spectroscopy  
AU Zell, M. T.; Padden, B. E.; Grant, D. J. W.; Schroeder, S. A.; Wachholder, K. L.; Prakash, I.; Munson, E. J.  
CS Department of Chemistry, University of Minnesota, Minneapolis, MN, 55455, USA  
SO Tetrahedron (2000), 56(36), 6603-6616  
CODEN: TETRAB; ISSN: 0040-4020  
PB Elsevier Science Ltd.  
DT Journal  
LA English  
AB We have been studying the artificial sweeteners **aspartame** (l-aspartyl-l-phenylalanine Me ester) and neotame (N-(3,3-dimethylbutyl)-l-aspartyl-l-phenylalanine Me ester) as compds. which exhibit polymorphism. <sup>13</sup>C CP/MAS NMR shows that **aspartame** exists in three distinct forms at room temp., depending on prepn.



conditions. For two of the forms, there exists three resonances for each carbon, indicating three crystallog. inequivalent sites and therefore three distinct conformations and/or arrangements of **aspartame** mols. within the unit cell. Two-dimensional exchange spectroscopy using high-speed MAS and very high-power <sup>1</sup>H decoupling on uniformly <sup>13</sup>C labeled **aspartame** is a very powerful tool for unambiguously assigning each resonance in the NMR spectrum of **aspartame**. Even for forms of **aspartame** that possesses multiple crystallog. inequivalent sites, it is possible to identify connectivities between the nuclei of each conformation and/or arrangement of mols. using two-dimensional NMR techniques. <sup>13</sup>C CP/MAS NMR also shows that neotame exists in multiple solid forms. The most stable form of neotame under ambient conditions is a monohydrate. However, other forms can be prepd. by heating or using reduced pressures. High-speed magic-angle spinning can cause a change in polymorphic forms. Three different forms were produced upon spinning at 29 kHz for several days. The monohydrate was identified as the second form produced. Also, altering the crystn. and drying conditions can generate mixts. of the solid forms of neotame. When the monohydrate form of neotame was heated under vacuum, a mixt. of anhydrate forms was produced. In the reconversion to the monohydrate upon exposure to moisture under ambient conditions no significant changes were obsd. in

the

powder **X-ray** diffraction patterns during part of the reconversion process. This suggests that no change in form had occurred. The <sup>13</sup>C CP/MAS NMR spectra, however, indicated the presence of many forms of neotame during the reconversion. One possible reason that solid-state NMR spectroscopy detected the changes in forms and powder **X-ray** diffraction did not is that the conformation of the neotame mols. changes between forms but the unit cell parameters do not change significantly.

RE.CNT 47

RE

- (1) Andrew, E; Prog NMR Spectrosc 1971, V8, P1 CAPLUS
  - (2) Anon; US 5510508 CAPLUS
  - (3) Anon; US 5728862 CAPLUS
  - (4) Anwar, J; J Pharm Sci 1989, V78, P337 CAPLUS
  - (5) Bennett, A; J Chem Phys 1992, V96, P8624 CAPLUS
- ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2001 ACS

TI Novel **aspartame** derivative crystal and process for producing the same

AN 1999:736740 CAPLUS

DN 131:321817

TI Novel **aspartame** derivative crystal and process for producing the same

IN Kishishita, Akihiro; Nagashima, Kazutaka; Ishida, Hirotooshi; Nagai, Takeshi

PA Ajinomoto Co., Inc., Japan

SO PCT Int. Appl., 18 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9958554	A1	19991118	WO 1999-JP2200	19990426
	W: BR, CA, CN, HU, KR, MX, RU, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				

JP 1998-125992 A 19980508

JP 11322788 A2 19991124 JP 1998-125992 19980508  
 BR 9910298 A 20010130 BR 1999-10298 19990426  
 JP 1998-125992 A 19980508  
 WO 1999-JP2200 W 19990426  
 EP 1076064 A1 20010214 EP 1999-917152 19990426  
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
 IE, FI

JP 1998-125992 A 19980508  
 WO 1999-JP2200 W 19990426

AB A process for producing crystals of a Me ester of N-[N-(3,3-dimethylbutyl)-L-.alpha.-aspartyl]-L-phenylalanine which comprises pptg. the ester from an aq. soln. thereof at a crystn. temp. of 25 >C or lower, further cooling the soln. if desired, subsequently sepg. the pptd. crystals (B-form crystals) by solid-liq. sepn., and then drying the crystals. The thus-dried crystals are novel crystals (D-form crystals)

of the ester which have an excellent rate of dissoln. These crystals, when examd. by x-ray powder diffractometry, have characteristic x-ray diffraction peaks at least at diffraction angles of 5.4>, 8.4>, 18.8>, and 17.6> (2<j, CuK.alpha.

line).

RE.CNT 14

RE

- (1) Ajinomoto Co, Inc; JP 02-243699 A 1990 CAPLUS
- (2) Ajinomoto Co, Inc; JP 04-346769 A 1992 CAPLUS
- (3) Anon; EP 362706 A1 CAPLUS
- (4) Anon; EP 405273 A1 CAPLUS
- (5) Anon; EP 514937 A1 CAPLUS

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2001 ACS

TI Novel **aspartame** derivative crystal and process for producing the same

AN 1999:736738 CAPLUS

DN 131:321816

TI Novel **aspartame** derivative crystal and process for producing the same

IN Kishishita, Akihiro; Nagashima, Kazutaka; Ishida, Hirotooshi; Nagai, Takeshi

PA Ajinomoto Co., Inc., Japan

SO PCT Int. Appl., 17 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9958553	A1	19991118	WO 1999-JP2199	19990426
	W: BR, CA, CN, HU, KR, MX, RU, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
				JP 1998-125991 A	19980508
				JP 1998-207605 A	19980723
	JP 2000026496	A2	20000125	JP 1998-207605	19980723
				JP 1998-125991 A	19980508
	BR 9910303	A	20010130	BR 1999-10303	19990426
				JP 1998-125991 A	19980508
				JP 1998-207605 A	19980723
				WO 1999-JP2199 W	19990426
	EP 1076063	A1	20010214	EP 1999-917151	19990426
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,				

IE, FI

JP 1998-125991 A 19980508  
JP 1998-207605 A 19980723  
WO 1999-JP2199 W 19990426

AB A Me ester of N-[N-(3,3-dimethylbutyl)-L-.alpha.-aspartyl]-L-phenylalanine (A-form crystals) having characteristic **x-ray** diffraction peaks, e.g., at diffraction angles of at least 6.0>, 24.8>, 8.2>, and 16.5> (2<j, CuK.alpha. line) is dried to a water content below 3%. The thus-dried crystals are novel crystals (C-form crystals) of the Me ester of N-[N-(3,3-dimethylbutyl)-L-.alpha.-aspartyl]-L-phenylalanine which have an excellent rate of dissoln. These crystals, when examd. by **x-ray** powder diffractometry, have characteristic **x-ray** diffraction peaks at least at diffraction angles of 7.1>, 19.8>, 17.3>, and 17.7> (2<j, CuK.alpha. line). When the C-form crystals (av. size, 100-1400 .mu.m) are in the form of granules, they have further improved soly.

RE.CNT 23

RE

(1) Ajinomoto Co Inc; JP 59-172444 A 1984 CAPLUS  
(2) Ajinomoto Co Inc; JP 60-37949 A 1985 CAPLUS  
(3) Ajinomoto Co Inc; JP 63-177774 A 1988 CAPLUS  
(4) Ajinomoto Co Inc; JP 63-33396 A 1988 CAPLUS  
(5) Ajinomoto Co, Inc; JP 03-204895 A 1991 CAPLUS  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> crystal

927171 CRYSTAL

524584 CRYSTALS

L12 1174833 CRYSTAL

(CRYSTAL OR CRYSTALS)

=> d his

(FILE 'HOME' ENTERED AT 11:35:04 ON 20 DEC 2001)

FILE 'CAPLUS' ENTERED AT 11:35:12 ON 20 DEC 2001

L1 2544 ASPARTAME  
L2 1168 DIMETHYLBUTYL  
L3 40 L1 AND L2  
L4 202700 SEED?  
L5 5 L3 AND L4  
L6 60 NEOHEXYL  
L7 73 NEOHEXYL?  
L8 3 L7 AND L1  
L9 3 L8 NOT L5  
L10 630673 X-RAY  
L11 4 L10 AND L3  
L12 1174833 CRYSTAL

=> l4 and l12

L13 15450 L4 AND L12

=> l10 and l13

L14 1332 L10 AND L13

=> l14 and l1

L15 2 L14 AND L1

=> d l15 1-2 ti fbib abs

L15 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2001 ACS  
 TI Crystallization processes of stable **crystals** of  
     **aspartame** derivatives  
 AN 2000:314715 CAPLUS  
 DN 132:321237  
 TI Crystallization processes of stable **crystals** of  
     **aspartame** derivatives  
 IN Kawahara, Shigeru; Kishishita, Akihiro; Nagashima, Kazutaka; Takemoto,  
     Tadashi  
 PA Ajinomoto Co., Inc., Japan  
 SO PCT Int. Appl., 24 pp.  
     CODEN: PIXXD2  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000026234	A1	20000511	WO 1999-JP6082	19991101
	W: BR, CA, CN, HU, KR, MX, RU, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
				JP 1998-310225 A	19981030
				JP 1998-310226 A	19981030
	JP 2000136196	A2	20000516	JP 1998-310225	19981030
	JP 2000136197	A2	20000516	JP 1998-310226	19981030
	BR 9914826	A	20011106	BR 1999-14826	19991101
				JP 1998-310225 A	19981030
				JP 1998-310226 A	19981030
				WO 1999-JP6082 W	19991101

AB A crystn. process for forming a stable **crystal** of  
     N-(3,3-dimethylbutyl)-L-.alpha.-aspartyl-L-phenylalanine Me ester,  
     comprises using either water or a mixt. of water with a lower alc. as the  
     crystg. solvent and controlling the crystn. point to .gtoreq. 30.degree.;  
     and another crystn. process comprises using either water or a mixt. of  
     water with a lower alc. as the crystg. solvent and using as the  
     **seed crystal**, a **crystal** of  
     N-(3,3-dimethylbutyl)-APM exhibiting peculiar peaks of diffracted  
     **x-ray** at least at diffraction angles (2 .theta.,  
     CuK.alpha. ray) of 6.0.degree., 24.8.degree., 8.2.degree. and  
     16.5.degree.  
     to thereby crystallize the above objective **crystal**  
     preferentially. These crystn. processes enable the const. formation of  
     stable **crystals** of N-(3,3-dimethylbutyl)-APM at a low cost.

RE.CNT 18  
 RE  
 (1) Ajinomoto Co Inc; JP 04346997 A CAPLUS  
 (2) Ajinomoto Co Inc; EP 514939 A1 1992 CAPLUS  
 (3) Anon; US 5248806 A CAPLUS  
 (7) Nofre Claude; FR 2719590 A CAPLUS  
 (8) Nofre Claude; FR 2719591 A CAPLUS  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2001 ACS  
 TI The "bundle-like" **crystals** in **aspartame**  
     crystallization  
 AN 1989:495772 CAPLUS  
 DN 111:95772  
 TI The "bundle-like" **crystals** in **aspartame**  
     crystallization  
 AU Kishimoto, S.; Nagashima, N.; Naruse, M.; Toyokura, K.  
 CS Cent. Res. Lab., Ajinomoto Co., Inc., Kawasaki, 210, Japan

SO Process Technol. Proc. (1989), 6(Ind. Cryst. 87), 511-14  
 CODEN: PTPREM  
 DT Journal  
 LA English  
 AB Batch cooling crystn. of **aspartame** without stirring, with rapid cooling and high initial concn. of feed soln. resulted in the prodn. of large rod-like **crystals** in which several needle **crystals** appeared to be bundles together under SEM. These bundle-like **crystals** were difficult to grow in general industrial crystallizer, such as a stirred tank or a fluidized bed. **X-ray** diffraction data suggested that the bundle-like **crystal** of **aspartame** was not an agglomerate but a sort of polysynthetic twin; however, crystallites grown divergently on a **seeded** bundle-like **crystal** under a stirred condition were agglomerate since they had not been able to keep the twinning structure caused by increasing of degree of disorder between the bundled **crystals**.

=> DIS HIST

(FILE 'HOME' ENTERED AT 11:35:04 ON 20 DEC 2001)

FILE 'CAPLUS' ENTERED AT 11:35:12 ON 20 DEC 2001

L1 2544 ASPARTAME  
 L2 1168 DIMETHYLBUTYL  
 L3 40 L1 AND L2  
 L4 202700 SEED?  
 L5 5 L3 AND L4  
 L6 60 NEOHEXYL  
 L7 73 NEOHEXYL?  
 L8 3 L7 AND L1  
 L9 3 L8 NOT L5  
 L10 630673 X-RAY  
 L11 4 L10 AND L3  
 L12 1174833 CRYSTAL  
 L13 15450 L4 AND L12  
 L14 1332 L10 AND L13  
 L15 2 L14 AND L1

=>

=>

Executing the logoff script...

=> LOG H

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	37.00	37.15
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	-4.12	-4.12

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Welcome to STN International! Enter x:x  
LOGINID:sssptal623paz  
PASSWORD:  
TERMINAL (ENTER 1, 2, 3, OR ?):2

\* \* \* \* \* Welcome to STN International \* \* \* \* \*

NEWS	1		Web Page URLs for STN Seminar Schedule - N. America
NEWS	2	Dec 17	The CA Lexicon available in the CAPLUS and CA files
NEWS	3	Feb 06	Engineering Information Encompass files have new names
NEWS	4	Feb 16	TOXLINE no longer being updated
NEWS	5	Apr 23	Search Derwent WPINDEX by chemical structure
NEWS	6	Apr 23	PRE-1967 REFERENCES NOW SEARCHABLE IN CAPLUS AND CA
NEWS	7	May 07	DGENE Reload
NEWS	8	Jun 20	Published patent applications (A1) are now in USPATFULL
NEWS	9	JUL 13	New SDI alert frequency now available in Derwent's DWPI and DPCI
NEWS	10	Aug 23	In-process records and more frequent updates now in MEDLINE
NEWS	11	Aug 23	PAGE IMAGES FOR 1947-1966 RECORDS IN CAPLUS AND CA
NEWS	12	Aug 23	Adis Newsletters (ADISNEWS) now available on STN
NEWS	13	Sep 17	IMSworld Pharmaceutical Company Directory name change to PHARMASEARCH
NEWS	14	Oct 09	Korean abstracts now included in Derwent World Patents Index
NEWS	15	Oct 09	Number of Derwent World Patents Index updates increased
NEWS	16	Oct 15	Calculated properties now in the REGISTRY/ZREGISTRY File
NEWS	17	Oct 22	Over 1 million reactions added to CASREACT
NEWS	18	Oct 22	DGENE GETSIM has been improved
NEWS	19	Oct 29	AAASD no longer available
NEWS	20	Nov 19	New Search Capabilities USPATFULL and USPAT2
NEWS	21	Nov 19	TOXCENTER(SM) - new toxicology file now available on STN
NEWS	22	Nov 29	COPPERLIT now available on STN
NEWS	23	Nov 29	DWPI revisions to NTIS and US Provisional Numbers
NEWS	24	Nov 30	Files VETU and VETB to have open access
NEWS	25	Dec 10	WPINDEX/WPIDS/WPIX New and Revised Manual Codes for 2002
NEWS	26	Dec 10	DGENE BLAST Homology Search
NEWS	27	Dec 17	WELDASEARCH now available on STN
NEWS	28	Dec 17	STANDARDS now available on STN
NEWS	29	Dec 17	New fields for DPCI
NEWS	30	Dec 19	CAS Roles modified
NEWS	31	Dec 19	1907-1946 data and page images added to CA and Caplus
NEWS EXPRESS			August 15 CURRENT WINDOWS VERSION IS V6.0c, CURRENT MACINTOSH VERSION IS V6.0 (ENG) AND V6.0J (JP), AND CURRENT DISCOVER FILE IS DATED 07 AUGUST 2001
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NEWS INTER			General Internet Information
NEWS LOGIN			Welcome Banner and News Items
NEWS PHONE			Direct Dial and Telecommunication Network Access to STN
NEWS WWW			CAS World Wide Web Site (general information)

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FILE 'HOME' ENTERED AT 13:44:21 ON 20 DEC 2001

=> +conrolling polymorphism

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=> file caplus

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FULL ESTIMATED COST

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0.15

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FILE LAST UPDATED: 19 Dec 2001 (20011219/ED)

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=> controlling polymorphism
      6 CONROLLING
      68980 POLYMORPHISM
      16323 POLYMORPHISMS
      72644 POLYMORPHISM
          (POLYMORPHISM OR POLYMORPHISMS)
L1      0 CONROLLING POLYMORPHISM
          (CONROLLING (W) POLYMORPHISM)

=> polymorphism
      68980 POLYMORPHISM
      16323 POLYMORPHISMS
L2      72644 POLYMORPHISM
          (POLYMORPHISM OR POLYMORPHISMS)

=> seed
      102816 SEED
      75101 SEEDS
L3      141941 SEED
          (SEED OR SEEDS)

=> l2 and l3
L4      927 L2 AND L3

=> crystal structure
      927171 CRYSTAL
      524584 CRYSTALS
      1174833 CRYSTAL
          (CRYSTAL OR CRYSTALS)
      2068583 STRUCTURE
      542491 STRUCTURES
      2323913 STRUCTURE
          (STRUCTURE OR STRUCTURES)
L5      357788 CRYSTAL STRUCTURE
          (CRYSTAL (W) STRUCTURE)

=> l4 and l5
L6      10 L4 AND L5

=> d l6 1-10

L6      ANSWER 1 OF 10  CAPLUS  COPYRIGHT 2001 ACS
AN      2001:385260  CAPLUS
DN      135:148815
TI      Crystallization and preliminary x-ray studies of snake gourd lectin:
          homology with type II ribosome-inactivating proteins
AU      Manoj, N.; Jeyaprakash, A. Arockia; Pratap, J. V.; Komath, Sneha Sudha;
          Kenoth, Roopa; Swamy, Musti. J.; Vijayan, M.
CS      Molecular Biophysics Unit, Indian Institute of Science, Bangalore, 560
          012, India
SO      Acta Crystallogr., Sect. D: Biol. Crystallogr. (2001), D57(6), 912-914
          CODEN: ABCRE6; ISSN: 0907-4449
PB      Munksgaard International Publishers Ltd.
DT      Journal
LA      English
RE.CNT  27
RE
(1) Bostwick, D; Plant Mol Biol 1994, V26, P887 CAPLUS
(2) Bouckaert, J; Curr Opin Struct Biol 1999, V9, P572 CAPLUS
(3) Brunger, A; Acta Cryst 1998, VD54, P905 CAPLUS

```



(4) Falasca, A; FEBS Lett 1989, V246, P159 CAPLUS  
(5) Jones, T; Acta Cryst 1991, VA47, P110 CAPLUS  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 2 OF 10 CAPLUS COPYRIGHT 2001 ACS  
AN 1996:573709 CAPLUS  
DN 125:284550  
TI Behavior of thiazole acid polymorphs in methanol-water mixed solution  
AU Koga, Keiichi; Kawakami, Ryouichi; Kagara, Kooji  
CS Technol. Development Lab., Fujisawa Pharmaceutical Co., Ltd., Osaka, 532, Japan  
SO Kagaku Kogaku Ronbunshu (1996), 22(5), 1174-1179  
CODEN: KKRBAW; ISSN: 0386-216X  
DT Journal  
LA Japanese

L6 ANSWER 3 OF 10 CAPLUS COPYRIGHT 2001 ACS  
AN 1994:567471 CAPLUS  
DN 121:167471  
TI Manufacture of polymorphic single crystals  
IN Nakatani, Hiroyuki; Hidaka, Takahiro; Hayashi, Hideki  
PA Sekisui Chemical Co Ltd, Japan  
SO Jpn. Kokai Tokkyo Koho, 5 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese

FAN.CNT 1  
PATENT NO. KIND DATE APPLICATION NO. DATE  
-----  
PI JP 06087685 A2 19940329 JP 1992-234432 19920902

L6 ANSWER 4 OF 10 CAPLUS COPYRIGHT 2001 ACS  
AN 1993:465933 CAPLUS  
DN 119:65933  
TI Cloning, expression, and crystallization of jack bean (Canavalia ensiformis) canavalin  
AU Ng, Joseph D.; Ko, Tzu Ping; McPherson, Alexander  
CS Dep. Biochem., Univ. California, Riverside, CA, 92521, USA  
SO Plant Physiol. (1993), 101(3), 713-28  
CODEN: PLPHAY; ISSN: 0032-0889  
DT Journal  
LA English

L6 ANSWER 5 OF 10 CAPLUS COPYRIGHT 2001 ACS  
AN 1990:137777 CAPLUS  
DN 112:137777  
TI Seeding effects on solidification behavior of cocoa butter and dark chocolate. I. Kinetics of solidification  
AU Hachiya, Iwao; Koyano, Tetsuo; Sato, Kiyotaka  
CS Food Res. Dev. Lab., Maiji Seika Kaisha Ltd., Sakado, 350-02, Japan  
SO JAOCs, J. Am. Oil Chem. Soc. (1989), 66(12), 1757-62  
CODEN: JJASDH  
DT Journal  
LA English

L6 ANSWER 6 OF 10 CAPLUS COPYRIGHT 2001 ACS  
AN 1989:448450 CAPLUS  
DN 111:48450  
TI The crystal growth of bismuth tellurite (Bi<sub>2</sub>Te<sub>4</sub>O<sub>11</sub>) from the melt and its **polymorphism**  
AU Astaf'ev, S. A.; Abdullaev, A. A.; Dolgikh, V. A.; Popovkin, B. A.

CS Mosk. Gos. Univ., Moscow, USSR  
 SO Izv. Akad. Nauk SSSR, Neorg. Mater. (1989), 25(5), 870-2  
 CODEN: IVNMAW; ISSN: 0002-337X  
 DT Journal  
 LA Russian

L6 ANSWER 7 OF 10 CAPLUS COPYRIGHT 2001 ACS  
 AN 1976:6546 CAPLUS  
 DN 84:6546  
 TI **Polymorphism** of copper phthalocyanine  
 AU Horn, Dieter; Honigmann, Berthold  
 CS Hauptlab., BASF A.-G., Ludwigshafen, Ger.  
 SO FATIPEC Congr. (1974), 12, 181-9  
 CODEN: FAPVAP  
 DT Journal  
 LA German

L6 ANSWER 8 OF 10 CAPLUS COPYRIGHT 2001 ACS  
 AN 1975:436152 CAPLUS  
 DN 83:36152  
 TI Double molybdates and tungstates with the composition  $M5Bi(EO_4)_4$ , M = potassium or rubidium, E = molybdenum or tungsten  
 AU Klevtsov, P. V.; Vinokurov, V. A.  
 CS Inst. Neorg. Khim., Novosibirsk, USSR  
 SO Izv. Akad. Nauk SSSR, Neorg. Mater. (1975), 11(2), 387-8  
 CODEN: IVNMAW  
 DT Journal  
 LA Russian

L6 ANSWER 9 OF 10 CAPLUS COPYRIGHT 2001 ACS  
 AN 1971:35443 CAPLUS  
 DN 74:35443  
 TI Crystal growth and dimorphism of lithium iodate  $LiIO_3$   
 AU Umezawa, Tetsutaro; Ninomiya, Yuichi; Tatuoka, Sizuo  
 CS NHK Tech. Res. Lab., Tokyo, Japan  
 SO J. Appl. Crystallogr. (1970), 3(Pt. 5), 417  
 CODEN: JACGAR  
 DT Journal  
 LA English

L6 ANSWER 10 OF 10 CAPLUS COPYRIGHT 2001 ACS  
 AN 1945:6871 CAPLUS  
 DN 39:6871  
 OREF 39:1067e-g  
 TI Thermal properties of fats and oils. IV. Some observations on the **polymorphism** and x-ray diffraction characteristics of tristearin and a highly hydrogenated cotton-**seed** oil  
 AU Bailey, A. E.; Jefferson, M. E.; Kreeger, Florence B.; Bauer, S. T.  
 SO Oil & Soap (1945), 22, 10-13  
 DT Journal  
 LA Unavailable

=> logoff hold

COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
20.96	21.11

FULL ESTIMATED COST

SESSION WILL BE HELD FOR 60 MINUTES

STN INTERNATIONAL SESSION SUSPENDED AT 13:49:30 ON 20 DEC 2001